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trial factors was the setting apart of the Salineros, or Seri Salineros; yet this distinction, fortuitous and variable at the best, expressed no essential character and has not been maintained. A much later distinction was that between the Seri and Tiburones, emphasized by Mühlenpfordt and exaggerated by Buschmann; but there seem to have been no better grounds for it than misapprehensions naturally attending a slowly crystallizing nomenclature. In any event it has not been maintained.

At several stages the chroniclers coupled the Seri with other tribes, on various grounds: in the eighteenth century they were thus combined with the Pima, the Piato, and especially the Apache tribes. In the earlier half of the nineteenth century they were frequently coupled in similar fashion with the Pima and Apache tribes, and in the later half of the nineteenth century, and even in its last lustrum, they have been similarly combined with the Yaqui. The later combinations seem to explain the earlier: the Yaqui outbreaks withdraw portions of the arm-bearing population from the Seri frontier, and the marauders take advantage of the withdrawal so regularly that a Yaqui scare is invariably followed by a Seri scare, and hence the two warlike tribes are constantly associated in the minds of the Sonorenses as synchronous insurrectionists; and scrutiny of the earlier chronicles indicates that most of the so-called combinations of former times were of similar sort.

On putting the chronicles together, it seems clear that the term "Seri" was originally of lax application, but was gradually restricted to the tribe inhabiting Tiburon and ranging adjacent territory, including the collingual but inimical Guayma and Upanguayma, and also the culingual and cotolerant Tepoka; and that the various Piman tribes, as well as the Apache, were always distinct, and commonly if not invariably inimical.

The ethnic relations of the Seri people attracted early and repeated attention. Humboldt gave currency, albeit not unquestioningly, to a supposed Chinese or related Oriental affiliation; Hardy noted the similarity of the Seri tongue to that of the Patagonians; Lavanderu classed the language as Arabic; Stone and Bancroft circulated a supposed identification of the speech with the Welsh; Ramirez, and more especially Pimentel, narrowed the field of affiliation to Mexico and defined the tongue as distinct; Orozco y Berra, and more especially Malte-Brun, slightly reextended the field and suggested affiliation with the Caribs; while Herzog, Gatschet, and Brinton reextended the field in another direction and saw, in a vocabulary obtained from a Seri scion but alien thinker, similarities between the Serian and Yuman tongues. The recent researches tend strongly to corroborate the evidence collected and the conclusions reached by Ramirez and Pimentel; for the somewhat extended comparisons between the Serian and neighboring languages (introduced and discussed in other paragraphs) indicate that the

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Seri tongue is distinct save for two or three Cochimí or other Yuman elements, which may be loan words such as might readily have been obtained through the largely inimical interchange of earlier centuries described by Padre Juan María de Sonora and other pioneer observers—certainly the slight and superficial similarities with other tongues of the region seem insufficient to meet the classific requirement of supposititious descent from "a common ancestral speech".[1] Accordingly the group may be defined (at least provisionally) as a linguistic family or stock, and may be distinguished by the family name long ago applied by Pimentel and Orozco, with the termination prescribed in Powell's fifth rule,[2] viz, *Serian*. Conformably, the classification of the group would become—

Serian stock, comprising—

Seri tribe, including Tiburones and (certain) Salineros;
Tepoka tribe;
Guayma tribe;
Upanguayma tribe.

Naturally this classification is provisional in certain respects. It is little more than tentative in so far as the Tepoka are concerned, since no word of the Tepoka tongue has ever been recorded, so far as is known, and since the tribe is still extant and within reach of research; it must be held provisional also in respect to the separateness of the stock, which may be found in the future to be affiliated with neighboring stocks, though the effect of the more recent and more critical researches in eliminating supposed evidences of affiliation points in the opposite direction. The arrangement is in some measure provisional also with respect to the relations between the long-extinct Guayma and Upanguayma and the type tribe, especially since contrary suggestion has been offered in terms implying the existence of unpublished data; yet the presumption in favor of the critical work by Ramirez, Pimentel, and Orozco is so strong that practically this feature of the classification may be deemed final.

No attempt has been made to render the tribal synonymy exhaustive, though search of the records has incidentally brought out the more important synonyms, as follows:

Seri Tribe

CERY—1826; Hardy, Travels, p. 95.
CERI—1875; Pimentel, Lenguas Indígenas, tome II, p. 229.
CERIS—1715; Villa-Señor, Theatro Americano, p. 391.
CERIS TEPOCAS—1760; Velasco, Noticias Estadísticas, p. 132.
HERI—1854; Buschmann, Die Spuren der aztekischen Sprache, p. 221.
HERIS—1615; Ribas, Triumphos de Nuestra Santa Fee, p. 358.
HYRIOS—1630 (?); Van der Aa, map.

[1] Indian linguistic families, by J. W. Powell, in Seventh Annual Report, Bureau of Ethnology, 1885–'86 (1891), p. 11.
[2] Ibid., p. 98.

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monly the carapace and the longer bones from the flippers of the larger specimens are preserved entire for other uses, and are cleaned only by teeth and talons and tongues, aided by time but not by fire; but the plastron, unless broken up and consumed immediately, is subjected to a cooking process in which it serves at once as skillet and outlet—it is laid on the fire, flesh side up, and at intervals the shriveling tissues are clawed off and devoured, while at last the scorched or charred scutes themselves are carried away to be eaten at leisure.[1]

Perhaps the most significant fact connected with the Seri turtle-fishing is the excellent adaptation of means to ends. The graceful and effective balsa is in large measure an appurtenance of the industry; the harpoon is hardly heavier and is much simpler than a trout-fishing tackle, yet serves for the certain capture of a 200-pound turtle; and the art of fishing for a quarry so shy and elusive that Caucasians may spend weeks on the shores without seeing a specimen is reduced to a perfection even transcending that of such artifacts as the light harpoon and fragile oila. Hardly less significant is the nonuse of that nearly universal implement, the knife, in every stage of the taking and consumption of the characteristic tribal prey; for it may fairly be inferred that the comparative inutility of the knife in dissevering the hard and horny chelonian derm, and the comparative effectiveness of the shell-breaking and bone-crushing hapĕ, have reacted cumulatively on the instincts of the tribe to retard the adoption of cutting devices. Of much significance, too, is the limited cooking process; for the habitual consumption of raw flesh betokens a fireless ancestry at no remote stage, while the crude cooking of (and in) that portion of the shell not consecrated to other uses might well form the germ of broiling or boiling on the one hand and of culinary utensils on the other hand. On the whole, the Seri turtle industry indicates a delicate adjustment of both vital and activital processes to a distinctive environment, in which the abundant chelonian fauna ranks as a prime factor.

Analogy with other primitive peoples would indicate that the flesh of the turtle is probably tabu to the Turtle clan, that the consumption of the quarry is preceded by an oblation, and that there are seasonal or other ceremonial rites connected with turtle-fishing; but no information has been obtained on any of these points save a few vague and unwilling suggestions from Mashém tending to establish the analogy.

Flotsam and stolen metal have played a rôle in the industries of Seriland so long that it is difficult to learn much of the turtle fishing

[1] These details were furnished largely by Mashém and Sidor Hariman, but were verified in essentials by personal observation of diastic customs at Costa Rica in 1894, and they were corroborated by observations on both shores of El Infiernillo and Bahía Kanhkaak in 1895. Especially significant were the remnants of a turtle feast on the southern beach of Punta Miguel interrupted by the approach of the exploring party. The indications were clear that the turtle had been landed and largely consumed before the fire was kindled, and that the cooking of the firmer portions had hardly been commenced before the camp was abandoned so hurriedly that not only the nearly eaten turtle and the glowing embers, but the harpoon (the specimen illustrated in figure 39), the still bloody and greasy hapĕ (that represented in plate LIV), and the fire-sticks were left behind. Charred fragments of charred plastrons are common relics about heavily shandoned camps generally.

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174 during prenatal times; but an intimation from Mashém that the old
177 men thought it much better to take the turtle with the teeth of an
411 "animal that goes in the water", and the similarity in terms for "harpoon" (or arrow) and "teeth" both suggest that the aboriginal point may have been a sea-lion tooth, and that the foreshaft itself may have been a larger tooth of seal or cetacean. While the modern harpoon is shaped with the aid of metal (hoop-iron, etc.), the forms are quite evidently vestigial of knifeless manufacture, in which a naturally rounded or abraded or fire-shaped foreshaft was fitted into the natural socket afforded by a cane stalk broken at its weakest point—i. e., just below the joint; and both function and socket arrangement (as well as the linguistic evidence) strongly suggest the cylindrical tooth as the germ of the apparatus.

223 It is probable that water-fowl, considered collectively, stand second in importance as Seri prey; and the foremost fowl is undoubtedly the pelican, which serves not only as a fruitful food-supply but as the chief source of apparel.

The principal haunt and only known breeding ground of the pelican in the Gulf of California is Isla Tasmo, an integral part of Seriland; and while the great birds are doubtless taken occasionally in Bahia Kunkaak, El Infiernillo, Bahia Tepoka, and other Seri waters, this island is the principal pelican hunting ground. According to Mashém's account, the chase of the pelican here is a well-organized collective process: at certain seasons, or at least at times deemed propitious by the shamans, pelican harvests are planned; and after some days of preparation a large party assemble at a certain convenient point (presumably Punta Antigualla) and await a still evening in the dark of the moon. When all conditions are favorable they set out for the island at late twilight, in order that it may be reached after dark; on approaching the shore the balsas are left in charge of the women, while the warriors and the larger boys, armed only with clubs, rush on the roosting fowls and slaughter them in great numbers—the favorite coup de grâce being a blow on the neck. The butchery is followed by a gluttonous feast, in which the half-famished families gorge the tenderer parts in the darkness, and noisily carouse in the carnage until overcome by slumber. Next day the matrons select the carcasses of least injured
[237] plumage and carefully remove the skins, the requisite incisions being
[291] made either with the edge of a shell-cup or with a sharp sliver of cane-stalk taken from an injured arrow or a broken balsa-cane. The feast holds for several days, or until the last bones are picked and the whole party eated, when the clans scatter at will, laden with skins and lethargic from the fortnight's food with which each maw is crammed.

Mashém's recital gave no indication as to whether the Pelican clan participate in the hunting orgies, though it clearly implies that the chase and feast are at least measurably ceremonial in character; and this implication was strengthened by the interest and comparative

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411 placed wing-feathers of hawk or falcon, neatly prepared by removing a thin strip of the rachis bearing the wider vexillum and attaching it by sinew wrappings at both ends, the feathers being about 5½ inches in length. The nock is a simple rounded notch, placed just below a joint and supported by the sinew ferrule; there is no feet-ping. The favorite point is a bit of flotsam hoop-iron, ground into elongate triangular shape with projecting barbs, and a short tang or shank fitted into a shallow notch in the foreshaft, cemented there with mesquite gum, and finally fixed firmly with sinew wrappings. A typical iron-point arrow, with bow and quiver, is depicted in plate XXX. Alternative points are of rudely chipped stone (two examples are illustrated in figure 37) somewhat clumsily attached to the foreshaft by mesquite gum and sinew wrapping; while the arrows used by boys and hunters of small game are usually pointless, the tip of the foreshaft being sharpened and hardened by slight charring. In some of the arrows, especially those designed for use in war, the foreshaft is notched, or else loosely attached to the main shaft, in order that it may be detached from the main shaft and remain in the body of enemy or prey. The foreshaft is commonly painted some bright color (red is prevalent), while the points and attachments of the "poisoned" specimens are smeared with some greasy substance.

The aboriginal Seri arrow has undoubtedly been modified during the centuries since the coming of Cortés and Mendoza with their metal-armed troopers; yet certain inferences as to the indigenous form of the weapon are easily drawn from its construction and the homologies of its parts.

The first feature of the artifact to attract attention is the relative clumsiness of attachment and frequent absence of points. The chipped-stone points are so rude as to be quite out of harmony with the otherwise delicately wrought and graceful arrow, while the attachment is strikingly rude; and it is still more noteworthy that the very name for stone arrowpoint was little understood at Costa Rica, and was obtained only after extended inquiry and repeated conferences among the older informants. Even the attachment of the effective points made from hoop-iron is bad constructionally; the sinew wrapping is carried around the entire blade in such manner as to sheathe the sharply ground edges and itself be cut on contact with firm tissue; and the fitting and wrapping are so rude as to be incongruous with the rest of the apparatus. On the whole the suggestion is strong that the arrowpoint is accultural—and this suggestion is further strengthened by the very existence of the practically functionless, and hence manifestly vestigial, hard-wood foreshaft. Turning to the structural homologies, the observer is at once struck with the parallelism running through the three most conspicuous compound artifacts found among the Seri, i. e., the harpoon, the fire-drill, and the arrow. All of these alike consist of two essential parts, main shaft and foreshaft; all are

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akin in function even in the superficial view of the Caucasian, and are much more closely related in primitive thought—indeed the fire-drill is but a featherless and nockless arrow, with the foreshaft charred at its fire-giving tip; and all are closely linked in language and allied with other terms in such wise as practically to establish identity among them in the thinking of their lowly makers (though unfortunately the incomplete vocabularies extant are insufficient for full study of the linguistic homologies). Briefly the indications are that the harpoon was the primary device, and that its foreshaft was a tooth of an aquatic fish-eater like the seal, or perchance in some cases an os penis; that its lineal successor was a loose-head lance for use on sea and land, at first with the unaided hand and later with the atlatl, or throwing-stick (the lance being now extinct, though recorded by early visitors to Seriland); that the next artifact-generation in the direct line was represented by the arrow, foreshafted with hard wood or tooth, made light and graceful and loose-headed or not, according to needs, and by the substitution of bow for atlatl; and that a somewhat aberrant line was marked by the taming of fire, its reproduction by the modified arrow, and the differentiation of fire-stick from arrow and either atlatl or bow.

In tracing these stages in technologic growth, it is to be remembered that the Seri are so primitive as to betray some of the very beginnings of activital concepts; that to them zoic potencies are the paramount powers of the cosmos; that in their simple thought fire is a bestial rather than a physical phenomenon; that in their naive philosophy the production of devouring flame is of a kind with vital birth and a similitude of sexual reproduction; and that according to their notions the conquest of quarry, including fire, is made practicable only by aid of the mystical potencies of beasts and flames gained through invocatory use of symbols or actual organs.

In the Seri tongue the term "fire-drill" is *kaak*, an indefinite generic meaning "kind" or "strong kind", with an egocentric connotation ("Our-Strong-Kind"), as in the proper tribal designation *Kun-kaak* or *Ku-kaak*; while the term for the nether fire-stick or hearth is either *maam* ("woman", or more properly "mother"), or else (and more commonly) *kaak-maam*, which may be rendered "Kind-Mother"—the "Kind", as among primitive folk generally, comprising both men and tutelary beasts; and in this case fire as the most mysterious of the beasts; there is thus a suggestive analogy between the designation for the fire-producing apparatus and that for the tribe itself. It should be noted that the zoic concept of fire is widespread among the more primitive peoples of various provinces, and sometimes persists in recognizable form in higher culture (witness the fire-breathing dragons of various mythologies, the "Red Flower" notion gathered in India by Kipling, etc); also that the ascription of sex to the fire sticks is prevalent among North American tribes, and at once helps to interpret the development of the fire-drill, fire-syringe, and other primitive devices, such, for example, as

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000 those so fully described by Hough,[1] and serves to explain the otherwise obscure genesis of the fire-sense, which must have accompanied and shaped that most significant of all steps in human progress, the conquest of fire.

411 The modern coordinate of the Seri arrow is the bow, made preferably from a straight and slender branch of the palo blanco. A typical specimen is illustrated in plate XXX; it is 4 feet 9½ inches long, with the outer face convex and the inner face flat; greatest width 1¾ inches, narrowed to 1¼ inches at the hand-hold; thickness at the hand-hold 1 inch, thinning to five-eighths inch at 8 inches from this point; tapering gradually in both dimensions toward the extremities, which are rudely notched to receive the cord (of mesquite-root fiber). The specimen [284] illustrated has been cracked and repaired in two places; in one place the repair was effected by a rough wrapping of sinew, and in the other by slipping over the wood a natural sheath of rawhide from the leg of a deer. The specimen is of added interest in that it combines bow [372] and nether fire-stick ("Strong-Kind-Mother"), one of the friction holes being worn out to the notched margin, and the other remaining in usable condition, as shown in the enlarged marginal drawing.[2]

Compared with the delicately finished and graceful arrow, the typical bow is a rude and clumsy device; it displays little skill in the selection and shaping of material, and evidently involves little labor in manufacture—indeed, the indications are that more actual labor is spent in the construction of a single arrow than in the making of a bow, while the arrow-making is expert work, betokening craft of a high order, and the bow-making little more than simple handiwork of the lowest order. The comparison affords some indication of the genesis [174] of Seri archery, and at the same time corroborates the independent suggestion that the arrow is of so much greater antiquity than the bow as to represent a distinct stage in cultural development—though the precise cultural significance of the bow is not easily ascertained.

Efforts were made to have different Seri warriors at Costa Rica in 1894 114 assume the normal archery attitude, with but moderate success, the 123 best pose obtained (illustrated in plate XXVIII) being manifestly unnat- 126 ural and a mere reflection of the attitude in the mind of the Caucasian poser; while the results of inquiries served only to indicate that the normal archery attitude was purposely avoided for reasons not ascertained. Fortunately another observer was more successful: in the course of the United States hydrographic surveys in 1873, Commander (now Admiral) Dewey received several visits from Seri warriors on board the *Narragansett*; and on the occasion of one of these visits, Mr 114 Hector von Hayer, of the hydrographic party, caught a photograph of 126 an archer in the act of drawing his bow. The negative was accident-

[1] Fire-making apparatus in the U. S. National Museum; the Museum Report for 1890, pt. II, 1894, pp. 331-367, and elsewhere.

[2] Ordinarily the nether fire-stick is of soft and porous wood, ocotoma palm-wood and water-logged pine being preferred.

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ally shattered, and no prints are known to have been made from it; but the fragments were carefully joined, and were kindly transferred to the Bureau by Mr Von Bayer in 1897, and from them plate XXIX was carefully drawn. The posture (partly concealed by the drapery) is extraordinary, being quite beyond the reach of the average human, and impossible of maintenance for any considerable interval even by the well-wonted Seri. The posture itself partly explains the difficulty of inducing the warriors at Costa Rica to assume it, since it is essentially a fleeting one, and indeed but a part of a continuous and stressful action—it is no less difficult to assume, or to catch in the camera, than the typical attitude of a baseball pitcher in action. The posture thus fortunately caught is quite in accord with the accounts of Seri archery from the esoteric side given by Mashém, and with the exoteric observations of Señor Encinas, Don Andrés, and others; for all accounts agree in indicating that the archer commonly rests inert and moveless as the watching feline up to a critical instant, then springs into movement as swiftly as the leaping jaguar, and hurls, rather than shoots, one, two, or three arrows before rushing in to the death or skulking to cover as the issue may require.

The Seri archery habit is in every way consistent with the general habits of the tribe, alike in the chase and in warfare, in which the tribesmen, actuated by the fierce blood-craze common to carnivores, either leap on their prey with purpling eyes and gnashing teeth, or beat quick and stealthy retreat; and it is especially significant in the light thrown on the bow as a device for swift and vigorous rather than accurate offense, an apparatus for lengthening the arm still more than does the harpoon, and at the same time strengthening and intensifying its stroke. The quick-changing attitudes of half hurling are equally suggestive of the use of the atlatl, and support Cushing's hypothesis[1] that the bow was derived from the corded throwing-stick. While the critical posture of Seri archery is unique in degree if not in kind in the western hemisphere, so far as is known, an approximation to it (illustrated in fig. 22) has been observed in Central Africa.[2] On the whole the Seri mode of using the bow, like its crude form and rude finish, indicates that it is a relatively new and ill-developed artifact, possibly acultural though more probably joined indigenously with the archaic arrow to beget a highly effective device for food-getting as well as for warfare; while the genetic stages are still displayed not only in the homologies between arrow and harpoon, but by the common functions of both arrow and bow with the fire-sticks.

Concordantly, as indicated by the use of the archery apparatus, the individual taking of large game is effected either by stealthy stalking or by patient ambuscade ended by a sudden rush; when, if the chase is successful, the quarry is rent and consumed as at the finish of the

[1] The Arrow. Proceedings Am. Ass. Adv. Sci., vol. xlvii, 1898, pp. 330-348.
[2] Glave's Journey to the Livingstone Tree. The Century Magazine, vol. xlii, 1891, p. 709.

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extreme lightness in proportion to capacity, a quality due to the spongy character of the torote coil and to the thinness of the splints used in the woof. The inside dimensions, weight, and dry-measure capacity (filled to the level of the brim with rice) of two typical specimens approaching extremes in size are indicated in the accompanying table. As noted elsewhere, the ware is absolutely without decorative devices in weave, paint, or form; it is baldly utilitarian, a model of economy in material and in the balance between structure and function, approaching in this respect the thin-walled canteen-olla, the graceful balsa, and the light but effective harpoon. The structural correspondence of the ware to a widespread type and its limited use among the tribe suggest an aboriginal origin for the Seri basketry; but the delicate adjustment of means to ends in the manufacture and the strictly local character of the material quite as strongly suggest an indigenous development.

Museum No.	Diameter	Depth	Weight	Capacity
174338.....	38 cm. (15 in.)	9.5 cm. (3¾ in.)	493 g. (17 oz.)	6.25 l. (6.6 qt.)
174339a ...	23 cm. (9 in.)	5.0 cm. (2 in.)	142 g. (5 oz.)	1 l. (1.06 qt.)

It is impossible to portray justly the food habits of the Seri without some reference to a systematic scatophagy, which seems to possess ritual as well as economic features. In its simplest aspect this custom is connected with the tuna harvests; the fruits are eaten in enormous quantity, and are imperfectly digested, the hard-coated seeds especially passing through the system unchanged; the feces containing these seeds are preserved with some care, and after the harvest is passed the hoard (desiccated, of course, in the dry climate) is ground between hupf and abat, and winnowed in baskets precisely as are the mesquite beans; and the product is then eaten either dry or in the form of atole like the mesquite meal. In superficial view this final factor is the precise homologue of the "second harvest" of the California Indians as described by Clavigero, Baegert,[1] and others; but it gains importance, among

[1] An Account of the Aboriginal Inhabitants of the Californian Peninsula, as given by Jacob Baegert, a German Jesuit missionary. . . . Translated and arranged for the Smithsonian Institution by Charles Rau: Ann. Rep. Smithsonian Inst. for 1863, pp. 392-399. Baegert's account of foods (pp. 393-397) is so opposite as to be worthy of quotation nearly entire:

"Notwithstanding the barrenness of the country, a Californian hardly ever dies of hunger, except, perhaps, now and then an individual that falls sick in the wilderness and at a great distance from the mission, for those who are in good health trouble themselves very little about such patients, even if these should happen to be their husbands, wives, or other relations; and a little child that has lost its mother or both parents is also occasionally in danger of starving to death, because in some instances no one will take charge of it, the father being sometimes inhuman enough to abandon his offspring to its fate.

"The food of the Californians, as will be seen, is certainly of a mean quality, yet it keeps them in a healthy condition, and they become strong and grow old in spite of their poor diet. The only period of the year during which the Californians can satisfy their appetite without restraint is the season of the pitahayas, which ripen in the middle of June and abound for more than eight weeks. The gathering of this fruit may be considered as the harvest of the native inhabitants. They can eat as much of it as they please, and with none this food agrees so well that they become corpulent during that period; and for this reason I was sometimes unable to recognize at first sight individuals, otherwise perfectly

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Summarily, the customary apparel of Seri men and women may be regarded as limited to three articles—(1) a kilt, normally of coarse textile fabric, which is made a prime necessity by a well-developed pudency; (2) a short wammus, also normally of coarse textile fabric, which is apparently regarded as a convenience and luxury rather than a necessity; and (3) a robe, normally of pelican skin, sometimes substituted for either or both of the other articles, but ordinarily used as bedding or as a buckler. The most valued of these articles is the robe, which in the absence of the others replaces the kilt; yet pudency demands the habitual use of some form of kilt, while both wammus and robe are held so far superfluous that they may be laid aside or bartered or otherwise dispensed with whenever occasion arises. 291

On considering the special functions and probable genesis of the Seri apparel, the student is impressed by the absence of the breech-clout, except perhaps in temporary improvisations—though the absence of this widespread article of primitive costumery need awaken little surprise in view of the environment, and especially of the abounding barbs of Seriland, which render all apparel of doubtful value save for the protection of tissues softened by habitual covering. The prevailing thornliness of the habitat renders the free flowing and easily removable apron the most serviceable protection for the exposed vitals of the pubic region; and this device, a common one in thorny habitats generally, grades naturally into the short skirt or kilt; while it would well accord with the maritime habit and habitual thought of the Seri to apply the tough and densely feathered skin of the pelican to the purpose. This suggestion as to the nascent covering of the tribe consists with the tribal faith, in which the Ancient of Pelicans ranks as the creative deity, while its modern representative is esteemed a protective tutelary possessing talismanic powers against cold, wet, bestial claw and fang, alien arrows, and all other evils; so that the use of this feathered pelt as a shield against spiny shrubbery, sharp-leaved sedges, and barb-thorned cacti is quite in harmony with Seri philosophy. Accordingly it seems clear that the pelican-skin kilt was autochthonous among the Seri, and that it was the original form of tribal apparel; and it is of no small significance that the type persists in actual use as well as in suggestive vestigial forms, such as pelican-down swaddling for infants, pelican-feather plumes on cradle nets, etc. 182 291 [776] [774]

The passage from the pelican-skin kilt to the garment of textile fabric under the slow processes of primitive thought may not be traced confidently, though a strong suggestion arises in the Seri hair-cult (a Samoonian faith not without parallel in far higher culture) under which mystical powers and talismanic virtues are imputed to the human pelage. It is in connection with this cult that the Seri locks are so attentively cultivated and so assiduously preserved and consecrated to more intimate personal uses in belts, necklaces, and the like; and although the connecting links have not been found, it is thoroughly 174 291 826

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In accord with Seri thought to assume that in earlier times the hair necklaces were expanded into rudimentary apparel in connection with pelican-skin shields, and after the conquest of vegetal fibers into more finished garments probably woven partly of hair and worn in such wise as to supplement the natural pelage in the protection of back, shoulders, chest, and arms. If the indication of the tribal cult be valid, it would appear that the wammus was the second piece of apparel in order of genesis, though the first to be made of artificial fabric; and it is noteworthy that the suggestion is supported by the form of the short and free-flowing garment underlying the flowing tresses of warriors and matrons, as well as the vestigial use of human-hair cords for neckbands and fastening strings; while its antiquity in comparison with the textile kilt is indicated by the fact that it is a finished artifact, evidently fitted to its functions by generations of adjustment.

The step from the making of the wammus to the substitution of artificial fabrics for the pelican-skin kilt was an easy and natural one; and it need only be noted that the transition is still incomplete, since the feathered pelt is unquestioningly substituted for the fabric whenever occasion demands, yet that the kilt in some form must be much more archaic than the wammus, since it is correlated with the pudency sense,[1] while the complete garment is not so correlated save in slight and incipient degree.

Accordingly the three articles of apparel may be seriated genetically as (1) the pelican-skin robe, used long as a kilt, and only lately relegated to emergency use and bedding; (2) the well-differentiated wammus of textile fabric with hair-cord fastenings; and (3) the textile kilt, with or without a hair-cord belt. And the three artifacts are local and presumptively—indeed manifestly—autochthonous, and exemplify the interdependence of artifacts and environment no less strikingly than the Seri baisa or basket or jacal.

TOOLS AND THEIR USES

In advanced culture tools are finished products, made and used in accordance with preconceived designs or established arts for the production of commodities; in primal life (as well exemplified by Seri handicraft) tools are mere by-products incidental to the largely instinctive activities directed toward the maintenance of life. Accordingly, the tools of advanced culture form the nucleus of industries, while the designless tools of the prime cluster about the outskirts of industrial

[1] In this writing the conclusion reached in an unpublished discussion of the beginning of clothing is assumed—i. e., that the primal apparel was purely protective, and that the habitual concealment of portions of the body incidental to its wearing gradually planted the pudency sense. The germ of clothing, without attendant pudency, is well illustrated in Karl von den Steinen's observations and discussions of the Brazilian natives (Unter den Naturvölkern Zentral-Brasiliens, Berlin, 1894, pp. 198-199). It is noteworthy that the Seri, more primitive as they are in so many respects than any other American aborigines known, are much farther advanced than the Brazilian natives in appareling and its effects on character. The similarities and the differences are alike interesting; yet in both cases the costumes reflect environmental conditions and needs with remarkable fidelity.

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

177 411 726 included a heavy Springfield "remodeled" rifle, lacking not only ammunition but breechblock and firing pin; while Don Andrés Noriega, of Costa Rica, and L. K. Thompson, of Hermosillo, described a rifle of modern make captured similarly two years before, which was in good working order and charged with a counterfeit cartridge ingeniously fashioned from raw buckskin in imitation of a center-fire brass shell and loaded with a polished stone bullet.[1] The finders opined that the rifles were carried to bluff the enemy, and even that the counterfeit cartridge was designed to do deadly execution; but it would better accord with Seri customs, and with the law of piratical acculturation which they typify,[2] to infer that the weapons were regarded rather as symbols of mystical potencies than as simple scarecrows. Of related import were two or three pseudomachetes made from rust-pitted cask hoops, reported by the majordomo and several vaqueros at Costa Rica; and of still greater significance was a machete picked up in a just-abandoned jacal by Don Ygnacio Lozania—veteran of the Andrade expedition and the Eucinas conquest—which was laboriously rasped and scraped out of paloblanco wood, colored in imitation of iron blade and mahogany handle by means of face-paints, and even furnished with "eyes" replacing the handle-rivets, in the form of embedded iron scales. Some of the Seri are familiar with the normal use of firearms, as was demonstrated by the Robinson and other episodes, and many of them modernly make some use of machetes or other knives, as shown by various rudely whittled wooden artifacts; yet the burden of proof indicates that the chief use of the Caucasian's weapons in the heat of actual warfare is shamanistic and symbolic. This interpretation is, in fact, practically established by the experience of the frontier; for the vaqueros and local soldiery have little fear of the ill-understood firearms and clumsily handled machetes occasionally seen in Seri hands, though they dread unspeakably the necromantic arrows and flesh-rending teeth with which the agile foes are credited.

174 324 The mystical potency ascribed to Caucasian firearms and cutlery by the zoomimic tribesmen is of interest as a reflection of motives and methods pervading the entire range of their activities; at the same time it suggests the genesis of the aberrant technolithic craft displayed in arrow-chipping. The information obtained from Mashém and his mates concerning chipped arrowpoints implied that the process was hieratic and little understood by the body of the tribe, its place in the tribal knowledge, indeed, being similar to that of the brewing of the arrow "poison", which is the special work of shamans; and this information, comporting as it does with the rarity of the chipped points and

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[1] The imitative skill of the Seri was illustrated at Costa Rica some years ago, when the petty accounts for labor, etc, were kept by means of tokens stamped from sheet brass. While a Seri raucheria was maintained near the rancho, the storekeeper detected a number of counterfeits of his tokens, so well executed as to pass readily over the counter in ordinary exchange—and after extended detective work the counterfeiting was traced to the raucheria.

[2] American Anthropologist, vol. 11, August, 1898, pp. 243-256.

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

the crudeness of the work, strongly supports the inference that the stone arrow-making of the Seri was originally a fetishistic mimicry of alien devices—a plane, indeed, above which the craft has hardly risen even in recent decades. 174 324

While the Seri are devoid of military tactics in the strict sense of the term, they have certain customs of warfare which seem to be scrupulously observed. These customs are closely akin to those followed in hunting the larger land animals—indeed, the warfare of the tribe is merely an intensified counterpart of their chase. 726 [224]

The favorite tactical device of the warriors, as indicated by the great majority of their battles, is the ambuscade, laid and sprung either with or without the aid of decoys (usually aged women). Sometimes a considerable body act in concert under a prearranged plan; more commonly a few warriors only are involved at the outset, though these may be joined as the crisis approaches by companions lurking behind rocks and shrubs to be either on hand at the finish or in the way of ready flight, according to the turn of the battle-tide; and it is probable that the greater part of the ambuscades prove stillborn by reason of the oozing courage of leaders and the shirking of their supporters if the prospective victims present a bold front, or if the final omens are otherwise adverse. The ambuscade, with its flying contingent, grades into the device of stalking a stationary or slowly moving enemy, the stealthy approach terminating either in covert attack at close range or in sudden rush by a superior force. The theory, or rather the instinctive plan, of the campaign is to seek advantage in both position and numbers, to keep under cover until the instant of attack, to have sure and ample lines of retreat, and in every way to minimize individual risk.

There is a widespread notion toward the Seri frontier that the savages are given to sorties and surprises by night; but both specific testimony and the records indicate, when carefully analyzed, that this tactical device is much less common in practice than in repute, and is not, indeed, characteristic of the tribe. A few known battles began in attacks by night; but the war parties, like the hunting and fishing parties (save in the semiceremonial pelican pilgrimages), display decided preference for daylight in their forays—indeed, there are various indications that the folk are much more timid and oppressed with superstitious fears by night than by day.

In rare cases small parties of aliens have been half openly surrounded and done to death by considerably larger parties of the savage folk; but this method, too, is incongruous with the fixed habits of the tribe and with the deep-planted instinct of avoiding personal exposure.

A considerable number of the long list of homicides charged against the Seri, and marking the beginning of many of their battles, were individual rather than collective, the consummation of inimical impulse sometimes treacherously concealed for favorable opportunity, as in the 186 648

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

with the customs of the Seri), endured for many years and ending at last in unpitied death.

Collectively the cases seem to define a germ, rather than a mature custom, of adoption. In the first case a benefactor (by means regarded as magical) was formally inducted into the reigning family; in the second case the conquering hero (through what were again regarded as magical means) was less formally recognized and venerated, even worshiped, as an all-powerful shaman; while in the third case a representative of the doughtiest alien tribe was enslaved, probably with motives akin to those expressed in the carrying of chargeless guns, the making of imitation machetes, and other fetishistic devices. Except in the first instance there is no indication of consistent custom; but since the entire history of the tribe clearly contradicts regulated adoption of aliens (and indeed affords no other example), it must be inferred that any such custom is intratribal rather than intertribal.

MARRIAGE

The most striking and significant social facts discovered among the Seri relate to marriage customs.

As noted repeatedly elsewhere, the tribal population is preponderantly feminine, so that polygyny naturally prevails; the number of wives reaches three or possibly four, averaging about two, though the younger warriors commonly have but one, and there are always a number of spouseless (widowed) dames but no single men of marriageable age. So far as could be ascertained, no special formalities attend the taking of supernumerary wives, who are usually widowed sisters of the first spouse; it seems to be practically a family affair, governed by considerations of convenience rather than established regulations—an irregularity combining with other facts to suggest that polygyny is incidental, and perhaps of comparatively recent origin.

The primary mating of the Seri is attended by observances so elaborate as to show that marriage is one of the profoundest sacraments of the tribe, penetrating the innermost recesses of tribal thought, and interwoven with the essential fibers of tribal existence. Few if any other peoples devote such anxious care to their mating as do the Seri;[1] and among no other known tribe or folk is the moral aspect of conjugal union so rigorously guarded by collective action and individual devotion.

The initial movement toward formal marriage seems to be somewhat indefinite (or perhaps, rather, spontaneous); according to Mashém it may be made either by the prospective groom or else by his father, though not directly by the maiden or her kinswomen. In any event the prerequisites for the union are provisionally determined in the suitor's family; these relate to the suitability of age, the propriety of

[1] Perhaps the closest parallel in this respect is that found in the elaborate marriage regulations prevailing among the Australian aborigines, as described by Spencer and Gillen, Walter E. Roth, and other modern observers.

2: Kroeber E-5 (1930)1931 NU31 Seri NU31

114 Davis has had fuller opportunity to investigate, but confined my
121 attention to the social and religious sides of their life. There was the more reason for this since it is in dealing with these latter aspects, where verbal communications are as important as observation, that McGee's monograph is most tenuous and dubious. I also secured linguistic notes for the preliminary placing of the curious tonal speech of the Seri.

178 Seri culture in its present form is a fragmentary thing such as
182 could hardly have existed under purely native conditions. Religion especially has suffered, no doubt under Christian influence, without many elements of Christianity having been taken over in exchange. Of mythology, only tatters seem to remain; of ritual, little more; only shamanism seems to be fairly well preserved. Nor, beyond the Spanish names for God and the cross, do the Seri give evidence of being or having been Catholics. The result is that they seem remarkably religionless. I do not know of a native people that appears so free from superstition and so unspiritual in its attitudes. Possibly I conferred with the wrong informants; but those I talked with seemed unsecretive. Social culture is better preserved, as is evident from a set of kinship terms that are numerous, precise, and untouched by Spanish concepts. On the other hand, there is little formal social organization. Whether this is also the result of a loss, is hard to say. The Seri may never have had sibs or clans; but the fact that they appear to lack them now is no positive evidence that they were without them three centuries ago. Shifts of residence, contraction of territory, shrinkage of numbers, amalgamation of distinct bands, may well have obliterated much of such social fabric as they once possessed. Games and the calendar are wholly native and intact, but taboos connected with sex, age, food, and the like seem fewer than among the backward tribes of the southwestern United States. It seems reasonable to construe this condition as the result of varyingly hostile, parasitic, and missionizing Spanish-Mexican contacts; especially when one realizes how overwhelmingly, though also spottily, this influence has affected the other tribes of Sonora—the Yaqui, Mayo, Pima, and Opata.

101 Historically the Seri are not a tribe but the consolidated rem-
131 nant of a series of dialectically distinct tribes that once held the barren coast of Sonora from Guaymas to Puerto Libertad. Tiburon
174 Island is the stronghold in which the mixed survivors, probably now numbering less than 200, have taken refuge, and, owing to its inaccessibility, drought, and poverty, have succeeded in maintaining themselves and their blended and reduced culture. Toward the interior, it is doubtful if they ranged beyond the present line of the Southern Pacific railroad, if that far. Orozco y Berra indeed assigns them territory up the Sonora River to Ures, on his famous map, which is still basic to all other ethnic maps of Mexico. But from Hermosillo

2: Kroeber E-5 (1930) 1931 NU31 Seri NU31

to Ures is good farming country, and why the only non-agricultural people in Sonora should have held this stretch, is hard to see. Moreover, Orosco's bringing the Serian tribes so far inland as to abut on the Opata, severs the continuity of the American Pima Alto and Papago with the Mexican Pima Bajo, whose speech is almost identical. This identity is best understood as the reflection of a continuous occupation by the Pima of the whole foothill country from the Gila to the Mayo, between the Serian desert lowlanders and the Opata in their mountain valleys, with the Yaqui, Mayo, and other Cahita peoples replacing the Serians south of Guaymas where heavier rainfall and large flowing rivers made the lowlands attractive to farming peoples. The natural inland frontier of the Seri along the Sonora River would have been at the Siete Cerros, a low range some 25 miles, more or less, west of Hermosillo, where grass ends and creosote bush and giant sahuaro cactus soon become dominant beside mesquite. This boundary would have put the farmers on farm land, the roving gatherers into the succulently overgrown desert and along the food-stocked coast.

The Seri, then, in the wider sense, including the Guaymas, Tepocas, etc., were anomalous among the native peoples of Sonora in habitat as well as in culture. Now a similar country, almost waterless and cactus dominated, is the central segment of Mexican California. Here lived the Cochimi, dialectically the most divergent of the Yuman peoples, and with a culture similar to that of the Seri at least in its level. The habitat enforced a similar subsistence economy, unsettled living, scattering of population, inability of serious accumulation of property, and hence no doubt a relative paucity of most organizational aspects of culture. Whether the content of Cochimi culture was equally similar is difficult to say because of the melting away of the people. At any rate the question arises whether Cochimi and Seri are not historically connected, especially as both their languages are related to Yuman, whereas all other Sonora tribes are Uto-Aztecans. The connection seems the more possible in that southwest of Tiburon lies San Esteban Island; beyond that, San Lorenzo; and beyond, the great peninsula. The open-water distance nowhere exceeds fifteen miles. This is a difficult but not impossible gap to cross on cane rafts; and the Seri have skilful knowledge of currents and winds. The passage across the Infiernillo between mainland and Tiburon is little more than a mile at the narrowest point, but they often paddle five in their open boats to take advantage of weather conditions. The Seri remember navigating to San Esteban, and there is historical mention of crossings of the Gulf.

The final evidence for or against derivation of the Seri from Baja California will probably be linguistic, and if, as seems possible though doubtful, Cochimi speech can still be recorded in the peninsula, the answer may be definitive. The materials at present available

2: Kroeber E-5 (1930)1931 NU31 Seri NU31

114 583 As to the "total absence" (p. 285) of marriage purchase, whereas I found it, such purchase can hardly be believed to have originated wholly within the last 35 years, in view of its wide distribution in native America.

114 614 The whole matter of maternal lineages crystallised into totemic clans with matron rule (pp. 10-11, 167-8, 269 seq.) seems a fantasy. A careful reading of the passages in questions reveals how much McGee has built up on statements which he conscientiously admits to have been slender, probable only, and subject to possible misunderstanding. It must be remembered that in 1894 the matriarchate as original and primitive was still standard anthropological doctrine. At any rate, I got nothing suggesting even matrilineal reckoning in my indirect approaches to the subject, and explicit denials when it was directly presented.

114 342 That house-building may now and then be "accompanied by a chant" (p. 223) is possible, though it seems out of accord with the haphazard and shiftless methods of Seri work and the flimsy irregularity of their homes; but that the chant was "usually led by the eldest matron" seems more matriarchate.

114 174 That the Upanguayma, Guayma, and Tepoka were successively "extruded" (p. 75) would be correct if there were anything to show that the Seri were the parent stock of superior virtue, conservatism, and faithful attachment to their original habitat.

114 601 The statement (p. 11) that "kinship terms are strikingly scanty," made in the face of round-about and imperfect speech communications with the Seri, I cite only as an indication of the degree of McGee's readiness to fall back upon his preconceptions when facts became thin.

114 304 I did not note the absence of superior medial incisor teeth observed by McGee (p. 169) in married women. If a regular practise, its connection with the puberty rite would be a natural inference. But knocking out of teeth is a rare custom in America.

114 224 McGee's statements (pp. 196-7) that it is "undignified, if not wrong" to kill deer other than with the hands, and that jackrabbits are "customarily taken alive to camp," seem over-emphases. That a sense of sport or passing pride, or lack of weapons, now and then leads to such happenings, I do not doubt; but the Seri seem too practical and unromantic to exact rules on the point. I suspect that a youth who insisted on living up to them would soon be considered a vain bore. I may add that I saw a crippled wild duck hobble about the camp on Tiburon for two days, being played with occasionally by the children—without unusual roughness or unkindliness—and that finally it wandered to the water and gradually drifted off without notice being taken.

114 352 614 Face painting is construed by McGee as sematic of totemic line-

2: Kroeber E-5 (1930) 1931 NU31 Seri NU31

SERIAN TERRITORY AND TRIBES

The close speech unity of the Seri, Tepoca, Salineros, Guaymas, and Upanguaymas is affirmed by all the older authors. The name Seri has however been used in several senses, even in pre-ethnologic days: (1), for the entire group of related tribes, sometimes excluding and sometimes including the Guaymas; (2), for the inhabitants of Tiburon Island and the immediately opposite stretch of mainland; (3), for the inlanders more or less associated with the mission establishments from Hermosillo upstream, in contrast with the "Tiburones" of the island; (4), for the modern fusion of mainlanders and islanders, which evidently includes descendants of all Serian tribes except the Guaymas and Upanguaymas, who became absorbed in the lowermost Yaqui tribe or village of Belem. It is in this fourth and last sense that I use the term; my principal informant, in the tradition given, employed the third meaning; McGee mostly the second, with a strong implication of the thorough apartness and greater primitiveness of the islanders, as compared with their ethnic kinsmen.

The Tastioteños of my informant appear not to be known otherwise. The coastwise alignment of tribes from south to north seems to have been: Guaymas, Upanguaymas, Tastioteño, Seri or Tiburones, Tepoca, Salinero.

As already mentioned in the Introduction, it seems inherently unlikely that Serian territory extended as far up the Sonora river as Ures, near which Orozco y Berra puts the boundary. His undue extension is probably due to the fact that the missions to which Serians (other than Guaymas-Upanguaymas) became attached, were situated in the valley of the Opodepe or Horcasitas branch of the Sonora. According to McGee[10] these Missions were: Santa Magdalena de Tepoca, founded in 1687, soon abandoned, location long lost but probably up-stream from next; Nacameri, 7 leagues below Opodepe; Nuestra Señora del Pópulo, 9 leagues down, at Horcasitas; Nuestra Señora de los Angeles, 3-4 leagues down, maintained, with preceding, until 1767; Pitic or Pueblo de los Seris, more than 12 leagues down (opposite Hermosillo), founded last, in 1742. Nacameri and Pitic sound like Pima, not Seri, words. Whether the river valleys from Hermosillo up were actually Pima territory, as here surmised, will have to be established from documentary sources, possibly supplemented by recollections of the Pima surviving about Ures. It is conceivable that Serian tribes had driven the Pima out of the Sonora valley shortly before the founding of the missions, thus effectuating the division into Pima Bajos and Altos; or that the Pima shrinkage out of the middle of their territory began after their mis-

[10] Pp. 80, 88, 78, 72.

2; Kroeber E-5 (1930)1931 NU31 Seri NU31

On the other hand, if the hypothesis were true that the Seri reached their historic habitat from across the Gulf, they would have come from territory which in recent times was Cochimí, and their presumably closest relationship would be with these former neighbors, and only indirectly with the other Yumans. Thus the line of affinity would be Seri-Cochimí-main Yuman.

It is to test these two alternative hypotheses of Seri origins that the accompanying comparative vocabularies of Seri, Cochimí, Yuma, and Cocopa have been selected. They are limited because the only material pertinent to the problem at issue is stems represented in all three linguistic groups; and both the Seri and Cochimí data are scant. A number of words of the same meaning differ completely in the three groups—in their surface appearance at any rate—and have therefore been omitted as irrelevant. The residue consists of 33 Seri words which show more or less resemblance to the corresponding Cochimí or Yuman words or to both.

The Seri, Yuma, and Cocopa vocabularies were recorded by myself. Yuma and Cocopa represent distinct branches of Yuman. Cochimí 1 and 2 were recorded or copied respectively by W. M. Gabb in 1867 and by J. R. Bartlett about 1852, and are transcribed from photostat copies of the originals filed in the Bureau of American Ethnology and furnished through the courtesy of its Chief, Mr. Matthew Stirling. Both are entered on Smithsonian printed blanks. The Bartlett vocabulary is designated "from M. Robinia at Guaymas." It may represent a vocabulary taken down by Robinia from a Cochimí and given to Bartlett, or a record made by Bartlett from Sr. Robinia's memory of Cochimí. The words for two and three are identical, even in spelling, with those given by Clavigero. Those for one and man (tepeeg and tama in Clavigero) are different. The Bartlett vocabulary may thus not go back to a single native source.

The relations of the Cochimí dialects are not clear. To judge from the three Lord's prayers given by Clavigero, languages rather than dialects may have been involved. These prayers begin respectively pennayû nakaenambá, ua-lappá amma-bang miamú, cahai apá ambeing miá, and are attributed to latitudes 25°30'-26°, 28°, and 29°-31° in the peninsula. Gabb's entry for "my father" is ka-ai and for "sky" em-hai, which clearly correspond to Clavigero's northern Cochimí cahai (h silent in Spanish, usually a glottal stop) and ambei-ng ("in heaven"). Bartlett's dialect is not so easily identified. His word for father is calembag, and his sky remains a blank entry. There are a few other identities with Clavigero, besides the numerals mentioned, but they are to words scattered in Clavigero's

2: Kroeber E-5 (1930) 1931 NU31 Seri NU31

The Seri similarities evident in the vocabulary may be summarized as follows:

Definitely more similar to Cochimí: man, person, large : 3.
Somewhat more similar to Cochimí: tooth, house, two, three : 4.
Equally similar to Cochimí and Yuman: nose, bone, blood, sky, earth, fire, drink : 7.
Somewhat more similar to Yuman: hair, tongue, water : 3.
Definitely more similar to Yuman: eye, wood, dog : 3.
Perhaps more similar to Cochimí: sea, maize, bird, small, yellow : 5.
Perhaps equally similar: rock, good, one, eat : 4.
Perhaps more similar to Yuman: ear, beard, moon, tobacco : 4.

The result is, in brief, that the available data indicate the Seri language as about equally related to, and differentiated from, normal Yuman and Cochimí. There is proof neither for the hypothesis that Seri and Cochimí branched off in different directions from the main body of Yuman tribes, nor for the one which would branch the Seri off from the Cochimí after these had drifted into the peninsula and acquired a certain specialization there. The relation of the three language groups might be described as an equilateral one—or more exactly as isosceles, with Cochimí and Yuman somewhat the nearest to each other, but Seri equidistant from both.

Various hypothetical considerations might be adduced to explain this condition. Seri might be construed as an ancient offshoot from Yuman or proto-Yuman, which later came into contact with the Cochimí off-shoot and was influenced by it. Or, Seri might be conceived of as a Yuman branch that had drifted earliest into the peninsula and then was superseded there by Cochimí as a later offshoot from Yuman. But all such suppositions are equally lacking in positive evidence in their favor, and discussion of them tends to become fine-spun among conjectures. It is wisest to accept the salient fact, namely that available linguistic evidence affords no decisive proof either for or against the hypothesis that the Seri originated in peninsular California, and to leave the problem there in the hope that fuller knowledge of the languages will ultimately solve it.

Z: Kroeber E-5 (1930) 1931 NU31 Seri NU31

Very notable is the high resemblance to the Yumans of Arizona, especially in contrast with those of the Colorado. Not only are there more agreements with the Walapai than with the Yuma and Mohave, but the excess of resemblances over differences is about three times as great. The divergence between the two Yuman groups would be still wider if the comparison had been two-way instead of one-way, on account of the river tribes possessing whole systems of cults, clans, etc., of which the Walapai, Havasupai, and presumably Yavapai are almost as free as the Seri. 171

The central Californians are geographically so remote that the only significant figure in their case seems to be the fair number of positive resemblances.

The Pueblo low net excess of agreements is surely significant. Had the comparison been the other way around, it would have yielded an overwhelming excess of disagreements.

As to Sinaloa, the rather scant and uncompiled data indicate its culture, from about the Sinaloa river southward, as probably in the main a dilution of that of central Mexico, just as its prevailing speech is generally accepted as having been a dialect of "Mexican" or Nahua. However, occurrences like that of the *palanca* or carrying pole in Sinaloa and among the Seri are evidences of connection in that direction also.

List 2 is a check on the Lower California part of 1 by reversing the comparison. On its face, it diminishes the Seri-Baja California resemblances. Evidently the Gulf formed a serious barrier to communications, and if the Seri came out of the peninsula, it was a long time ago. Puzzling is the fact that the Waicura, three to four degrees of latitude south of the Seri, show an excess of agreements; the Cochimí, directly opposite, an excess of traits not reported for the Seri. Different authorship of the Waicura and Cochimí records can hardly explain all of this difference. Quite surprising is the northern Cochimí account of a woman-deceiving impersonation both of the creator and of ghosts, which inevitably suggests a secret society of the Patwin-Pomo-Yuki type of north central California.* One would certainly not expect such a cult organization among the scattered, chronically hungry Lower Californians.

One tentative clue suggests itself. It is conceivable that the Seri came to Sonora from the peninsula when the Waicura, or a culture of their eighteenth century type, were still situated about latitude 29° or 28°, being subsequently dispossessed by Cochimí, or by cultural stimuli from the north, which resulted in richer local growths than have been taken for granted for the area. I am not ready to take 174

* The human hair wigs or mantles which covered the whole person, like the ancient Californian feather mantle or cape of the moki, etc., are another parallel, but are reported for the peninsula generally.

2: Kroeber E-5 (1930)1931 NU31 Seri NU31

sides on this hypothesis. Intensive analysis of the data may strengthen or eliminate it.

List 3 bears on the Seri indirectly through segregating Gila Pima culture into those constituents which are also River Yuman (including the Maricopa) and those which are non-Yuman and therefore likely to be old or generic Pima. It must be remembered that the Gila outpost division of the Pima nation were in immediate contact and friendly alliance with the Maricopa, whose dialect and customs indicate them as a river Yuman tribe rather recently extruded from the lower Colorado valley. The Maricopa are first mentioned by Kino and his associates, just before 1700, as on the Gila. It seems unlikely that they left the Colorado more than about a hundred years earlier. However, this would give three centuries of close association of the two tribes, before which there may have existed a period of less specific communications up and down the Gila.

The array of Pima-Yuman traits in section A of list 3 is rather impressive.. Several have a somewhat wider distribution, but even such traits are usually centered, or most intensely developed, in the Gila-Colorado tract. It is probable that the Pima and Yumans contributed about equally to what they share. Traits like agriculture, irrigation, and pottery, which extend thousands of miles southward but stop with or just beyond the Yumans, have certainly moved from the Gila to the Colorado. On the other hand, in some cases the Pima admit adoption of Maricopa elements. The myth-episode of the making of fire by the fly and coyote's theft of the heart must have originated among the cremating Yumans or southern Californians and been adopted with something of a wrench by the interring Pima.

Sections B and C of the list give the traits not shared by the two groups. The Pima list is about twice as long as the Yuman one. This appears to be due only in part to the fullness of Russell's monograph. Pima culture seems quantitatively the richer, River Yuman the more specialized. It will be noted that the Yuman traits include very few in material culture or technology, interest in which, as in ritual, seems to have been suppressed by the Yuma and Mohave in proportion as they became absorbed in their peculiar war customs and their individualistic dream religion. Again, as Herzog has pointed out, River Yuman music has developed an unusually well marked style of its own.[53]

The bearing on the Seri is this. Half-a-dozen non-Yuman Gila traits (list 3B) recur among the Seri—more if the several features of the dice and hiding games are counted separately; none of the non-Pima River Yuman traits (3C) are Seri. But this does not mean that the Seri are closer to the Pima than to the Yumans generally, because the desert Yumans, as represented by the Walapai and Hava-

[53] JAFL 41:188-231, 1928.

2: Kroeber E-5 (1930)1931 NU31 Seri NU31

SUMMARY AND CONCLUSIONS

121 Knowledge of the Seri is still in its infancy. McGee's actual
114 observations are excellent but slender in range. He has interwoven them with conjectures, some of which are erroneous and others unproved and doubtful. Intensive study of the Seri will be difficult, chiefly for physical and practical reasons, but, to judge from such explicit data as are in hand, should prove them to be a tribe unusually interesting indeed, yet fundamentally similar to others in the same region. So many of their known traits are shared with one or another of these tribes, that it is practically precluded that complete investigation will leave the Seri as a unique people or even as one set widely apart, except in their historical fortunes.

13 The most distinctive thing about the Seri is their environment.
182 This is extremely arid and lacking in water supply, but not desert in the ordinary, untechnical sense. Botanists describe it as a succulent vegetation desert. It is fairly well stocked with food inland and rich in food along shore. This territory is able to support a fair sized population, but scatters it and keeps it from settling down. The land is also inhospitable and difficult to strangers who are not ready to adopt the Seri mode of life. This fact has helped preserve Seri ethnic integrity and culture to an unusual degree. A considerable fraction of original Serian territory is wholly unoccupied by civilization today, a full three centuries after its frontier was settled. The Indian neighbors of the Seri, all being farmers in fertile valleys, had no more incentive or ability than Caucasians to penetrate Seri territory sustainedly.

171 Across the Gulf, the peninsula of California presents a very
174 similar environment, and was inhabited by tribes of very similar subsistence and residential habits, culture level, and temperament. But the Baja Californians differed from the Seri in being so situated, with reference to the rest of the world, that the length of the peninsula cut them off, except in the northern portion, from nearly all outside relations. Each group in the peninsula thus had contacts and stimuli only from others of similar culture. The Seri, on the contrary, having long been surrounded on the landward side by peoples of higher cultural level, were able to exploit this difference, in part by adopting cultural traits from their neighbors; and perhaps still more largely by preying upon them economically; while their habitat afforded them a refuge from destructive reprisals. Such may have been the condition in pre-Columbian days. At any rate it has been such since the coming of the Spaniards, and has made the "history" of the Seri different from that of the Baja Californians.

174 Three islands, Tiburon, San Esteban, and San Lorenzo, form stepping stones from Seri mainland to the peninsula. The water gaps between them are navigable to native craft and have been navigated

2: Kroeber E-5 (1930) 1931 NU31 Seri NU31

by them at times. This raises the question of whether the Seri may not have reached their habitat from the peninsula, or possibly the reverse. The solution of this problem depends on an analysis of full data on physical type, speech, and culture content, and only a partly conclusive answer, discussed below, can as yet be given. In general behavior and temperament, Seri and peninsular Californians seem to have been strikingly alike; but this fact can not in itself be construed as evidence of common origin, because the similar psychology may be largely determined by similar residence and subsistence habits resting in turn on almost parallel environment; much as pastoral nomads or mariners in whatever part of the world, and with or without historical connections, are likely to exhibit analogous mental attitudes in contrast with rural or urban populations.

In any event, it is wholly unproved that the Seri possess a native endowment which is more animal-like, more dominated by instinctive impulses and less capable of cultural development, than other peoples'. In fact the improbability of such an assumption is indicated by their possession of culture traits, like certain games and their kinship system, which they either share with neighboring tribes or have developed into rather high specialization. The meagernesses of their culture are therefore evidently due to factors in their particular history or geography rather than to congenital deficiencies or abnormalities. This does not mean that it would be easy to convert the Seri to the mode of life of Pima or Mexican. Habits of irresponsibility and unsettlement once established, even through part of childhood only, are notoriously difficult to alter. Witness the Gypsies. However, such practical habit difficulties are of course no evidence as to quality of endowment.

The modern Seri are the amalgamated remnants of some three or four of a half dozen closely related Serian groups formerly recognized. The preponderant one in the fusion of these groups is likely to have been that which held Tiburon and the fronting mainland, on account of better preservation of their numbers and habits in the relatively inaccessible island refuge.

Seri physique is distinctive in physiognomy, expression, and habitus, as would be expectable in a people sharply set off from its neighbors in practises and attitudes. The measurements available show no very marked differences of gross anatomy from neighboring tribes, either in stature, head shape, or nose proportion. The head may be somewhat rounder than among Pima and Yaqui; the difference in body seems more to be one of greater slenderness than of greater height. The Seri abilities to endure hunger and fatigue and to run great distances are faculties possessed by nearly all tribes of the southwest United States and northwest Mexico.

The Seri language is intrinsically and markedly tonal, more given to consonontal accumulations than the neighboring Uto-Aztecan and

8: Ascher E-5 (1960) 1962 NU31 Seri NU31

Elsewhere (Ascher 1961) I have disputed this portrayal of the potential of existing ethnography, citing examples where qualitative and quantitative models have been constructed from ethnography and suggesting that one task for archeology is to codify the literature in a manner useful to itself. Regardless of doubts about existing ethnographies for archeological purposes, the worth of future ethnography for archeology will depend on the acquisition of the relevant kinds of information. Although discussion on the subject has been recorded (Tax *et al.* 1953: 229-232), no specific guides have been produced. This paper provides and discusses an example, which can be used as a paradigm, model, or guide of the kind of information to be collected from ongoing communities which would be of general value for archeology. The subject culture is that of the Seri Indians of Sonora, Mexico; the example describes a persistent trait complex associated with fishing for the Pacific green turtle, with particular emphasis on one trait in the complex, the harpoon foreshaft.

Example from the Seri Indians

The Seri, who numbered approximately 200 individuals in 1960, occupy a band of coastal desert about four miles wide and seventy miles long in the state of Sonora in western Mexico. The band extends along the Gulf of California from Kinó Bay in the south to Desemboque in the north, opposite the largest island in the Gulf, Tiburon. Although the region is desert, with an estimated average rainfall of less than eight inches per year, falling mostly in July and August, it is comparatively rich in succulents and small land mammals. The Gulf forms a natural trap for large fish and marine mammals and is a breeding ground for the Pacific green turtle. The scantiness of fresh water has constituted, in the past and present alike, the single crucial limiting factor to agriculture and human occupancy.

In the past the Seri may have comprised from four to six tribal groups, and they were certainly numerically larger, with a maximum estimated population of 2,000 (Kroeber 1931: 53, 30). Until very recently they also occupied Tiburon Island, and at some more remote period they extended south, north, and east over a territory whose bounds are uncertain (Kroeber 1931: 5). On the basis of linguistic change, Kroeber (1931: 54) calculated that the Seri could have inhabited this general region for 1,000 years. It is uncertain whether the original occupation stemmed from Baja California via the Gulf of California or from the north and west via an overland route or routes (Kroeber 1931: 39-51). The first contact with Europeans occurred as early as 1540 (McGee 1898: 51).

In culture content the Seri are most closely affiliated with the Pima (Kroeber 1931: 51), but they do not share the practice of agriculture with them or with their western neighbors. The Seri are primarily fishermen; secondarily they gather the fruits of succulents; and to a still lesser extent they hunt game. McGee (1898: 214)

9:Malkin E-6 (1963-1965)1962 MU31 Seri MU31

412 the stimulus of the tourist trade, has kept this
285 tool alive. Another survival from McGee's times
301 are *Olivella* shell necklaces.

Seri Antecedants and Relationship

● 174 For complete lack of archaeological information, little can be deduced about Seri antecedents. Speculations can be made only on the basis of similarities of their post-historic cultures with the cultures of the surrounding tribes.

171 Individual traits between the Seri and their
174 neighbors show discordant connections. Comparative data assembled by Kroeber, Beals and Driver & Massey suggest almost equal possibilities of derivation from the Cochimí, the Gila, Pima and the Yuman tribes but favor much less connections to the south. Much is made of the basketry. Archae-
[172] ological basketry has been unearthed since the work of Kroeber and Beals was published (Massey, MS.), but it is different from the Serian. Seri basketry shows closest relationship to Pima-Papago complex (Malkin, MS.). But part of this may be not only post-historic but certainly very recent and is hardly an argument in favor of the Pima-Papago connections.

Kroeber (1930:5) thought that on the face of it, the Seri showed greatest affinity to the Cochimí on the grounds of their general development of economy—the hunting and gathering subsistence. But he also pointed out that relationship with the Cochimí may rest ultimately on the linguistic analysis if the Cochimí language can still be recorded—which is most dubious.

[P. 8 B]

9:Malkin E-5 (1953-1955)1962 NU31 Seri NU31

262 now," while the *Volsella* has been eaten in the past
172 just as much as it is now. The find of these four species in great numbers in the kitchen-middens only indicates that they probably were an important part of the Seri past. Historical records are scarce and no archaeology had ever been done in the region, except for Gifford's (as yet unpublished) excavations at Caborca. But Caborca is far away from the coast. Strong circumstantial evidence suggests that a good many of the kitchen-middens represent relics of the Seris' past encampments.

262 The verbal data for the Seris' past use of some species of molluscs in their diet is uncertain or unavailable. But it is safe to assume that if the animal is eaten today, then it certainly had been
●[174] also eaten in the past. It is not probable that the Seris should suddenly develop a taste for obscure kinds of animal food, while the entire trend had been in the other direction.

Of the different species the augur shell and the cone shell were said to have been "eaten in the past by the giants. Maybe 300-400 years ago." It is
[173] hard to account for this idea except that it probably refers to a myth.

Preparation

252 Preparation of the mulluscan food differs little, if at all, from any other food of animal origin. The animals are simply separated from the shell, the meat is dropped in water and boiled, usually
[263] for half an hour. Few ingredients other than salt are added and their use depends entirely on the availability of cash and on the individual tastes of the Indians. As far as I could tell, there is no differentiation in this for people of different sexes
262 or ages. Also there is no preference for different parts of the body.

Preferences

Some species are more liked than others, but this is related to their size rather than anything else. There does not appear to be any belief in the toxicity of molluscs and the occasional justification of the inedibility has been expressed in terms of size. Some species, it had been asserted, are not eaten simply because they are too small
* [825] to bother. Only *Cardium consors*, as one of the informants suggested, is venomous, but even this, to him, seemed uncertain and dubious for he said "maybe it is venomous."

Other Uses

301 a) *Decoration*: A considerable number of shells
* 825 were reported as used for decoration. The tabulation indicated altogether 10 species that had been or still are used for ornament. Three of these are discarded now, seven still in use. This is mostly in the form of various sorts of necklaces, which the women string on ordinary thread. *Solenostira pallida* is supposed to be worn as such by women and children, while *Cerithium stercusmuscarum* by the boys only. But I have never seen either of them make use of it in any way. On the other hand, *Trivia radiana* and the *Olive shell* are much

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so named must be of the same sex as the first. The significance of land ownership needs further investigation.

Many of the Seri still prefer, when possible, to live in their chosen band area. Sometimes a person, when he is approaching death, will ask to be taken to his own i?iziiting, where he can die and be buried in the area of his choice.

NOTES

1. Due to printing limitations, stress on Seri words has been omitted, and several orthographic symbol changes have been made for this paper. The phonetic values of the symbols used are the following: p is voiceless labial stop; t is vl. dental stop; k is vl. velar stop; ? is glottal stop; f is vl. labial flat spirant; ʋ is vl. labial grooved-rounded spirant; s is vl. alveolar spirant; z is vl. alveo-palatal spirant; l is vl. lateral spirant; h is vl. velar spirant; x is vl. back velar spirant; m is labial nasal; n is dental nasal; ng is velar nasal; y is palatal semivowel; i is a high close front vowel; e is a low close front vowel; a is a low open central vowel; o is a mid close back vowel.

2. These data were compiled during field trips to the Seri camps during the years 1956-61, the studies being carried out under the auspices of the Summer Institute of Linguistics. The principal informant was R. Herrera T. whose information was checked with and supplemented by nine of the older members of the tribe. I am indebted to my colleague, David Thomas, who read an earlier draft of this paper and made helpful suggestions.

3. 1) W. J. McGee, "The Seri Indians," *Bureau of American Ethnology, Annual Report*, No. 17, Part 1. Washington, 1898. 2) A. L. Kroeber, "The Seri," *Southwest Museum Papers*, No. 6. Los Angeles, 1931. 3) W. B. Griffen, "Notes on Seri Indian Culture, Sonora, Mexico," *Latin American Monograph Series*, No. 10, Gainesville, 1959.

4. It will be noted that between subdivision 3 and 4 on Fig. 3 there is an unnumbered area, the status of which is uncertain.

5. Kroeber states that McGee's concept of Seri maternal lineages crystallized into totemic clans with matron rule seem a fantasy. In Kroeber's opinion, "The Seri may never have had sibs or clans; but the fact that they appear to lack them now is no positive evidence that they were without them three centuries ago. Shifts of residence, contraction of territory, shrinkage of numbers, amalgamation of distinct bands, may well have obliterated much of such social fabric as they once possessed."

Griffen discusses the nature of the former Seri bands and states, "they may have been patrilineal and exogamous. The criteria . . . that Julian Steward has exposited for the formation of exogamous, patrilineal bands . . . are and presumably would have been met formerly in the Seri habitat." Griffen lists other aspects of this type of band which are also verified to some extent by his data. From reading his material, it is obvious that he suspects the existence of clans at some earlier period. He emphasizes the need for further investigation.

6. G. P. Murdock, *Social Structure*, Macmillan Co., New York, 1949.

7. Marriages were usually contracted within the band.

8. As Kroeber points out, their memory likely covers only the latter part of the period of Spanish contacts.

9. The Seri recall nothing of Seri-Pima contacts and little of Seri-Apache relations.

10. The story is related that one day some Seri entered a cave where they found several Papago jugs filled with seeds. Being hungry, the people ate the seeds and left some arrows as token payment. The Seri say that the Papago apparently believed the arrows were intended as an insult. Fighting broke out soon afterward.

11. The Seri concept of the band annihilations is seen to be in contradiction to McGee's statement (p. 132): "Concordantly with their primary characteristic, the Seri have avoided ethnic and demotic union beyond the narrow limits of their own kindred; and even of these they seem to have cast out parts, annihilating the Guayma and Upanguayma, displacing and nearly destroying the Tepoka, and outlawing individuals and (apparently) small groups."